

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SECRET
SECURITY INFORMATION

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COUNTRY	USSR	REPORT NO.	[REDACTED]
SUBJECT	New Radio Tube Designation System in the USSR	DATE DISTR.	14 April 1953
		NO. OF PAGES	4
DATE OF INFO.	[REDACTED]	REQUIREMENT NO.	[REDACTED] 25X1A
PLACE ACQUIRED	[REDACTED]	REFERENCES	[REDACTED] 25X1A

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
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(FOR KEY SEE REVERSE)

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SOURCE:

[REDACTED]

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1. The Soviets adopted a new system for designating radio tubes early in 1952. [REDACTED]

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2. [REDACTED] a sketch [see sketch on page 3] which illustrates the symbol or descriptive designation that appeared on the tubes and includes a detailed explanation of the characters. This symbol or designation usually consisted of five characters in units or blocks. The first of these was numerical, the second and third alphabetic, the fourth numerical, and the fifth alphabetic. The second unit of the designation was usually omitted on tubes allocated for civilian use. From this I assume that tubes having the second unit of designation were intended for military use. I do not believe many Soviet civilians knew of the second unit -- no blank space for that symbol appeared on the tubes used by civilians. The meanings of the units are:

- a. The first unit designated the filament voltage of the tube.
- b. The second unit, when it appeared, designated the power characteristics of the tube.
- c. The third designated the type of tube.
- d. The fourth was a number for the type of tube. [REDACTED] that experimental tubes were given numbers upward from 17. Therefore, the numbers of the tubes issued for military use would not run consecutively.
- e. The fifth unit indicated the size and shape, as well as the material, of which the tube was made.

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3. Another sketch [see sketch on page 4] illustrates the descriptive designations of the American RCA tube [REDACTED] and the corresponding old Russian and new Russian designations. [REDACTED] in 1948 only the American type tube designations were known and being used. These same designations were later translated into both the old Russian designations and into the new system presently in use.

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4. [REDACTED] 100-page manual written by G. Wulfinkel [REDACTED] explained the characteristics of the Soviet commercial radio receiver tubes. It was published in the USSR before the new Soviet designation system was completed -- probably in 1949 -- and no reference was made to the new system. This particular publication was not obtainable on the open market because of its limited distribution. However, I believe it is presently used exclusively by the military and has been amended to include new radio tube designations.

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G (blank) K 17 B
or 6AC7 = new 6X14B

1st

Number

Filament Voltage
or
Diameter

RUSSIAN RADIO TUBE DESIGNATION SYSTEM

- S E C R E T -

2nd

Letter

 ΓA = Generator
 $\lambda > 12m$ ΓY = Generator
 $\lambda < 12m$

B = Power Supply Rect.

P = Relay or Gas Filled

 \mathcal{A} = Tube with deflection
blank = Receivers only

3rd

Letter

A = Diode

C = Triode

 Γ = Pentode
Beam Power

X = Double Diode

 \mathcal{T} = TetrodeK = Shaded Pentode or
Beam Power with
Long characteristics \mathcal{K} = ditto with Normal Char.A = Generating Tubes
with Two GridsP = Triode with One
or Two DiodesB = Pentode with One
or Two Diodes

H = Double Triode

E = Indicator

 Γ = Gasatron
(Gas filled Tube)

T = Thyatron

O = Cathode Ray Tube
with magnetic Deflection

4th

Number

Type No

5th

Letter

Construction

C = Glass Envelope

B = Metal "

 \mathcal{K} = Acorn Tube Γ = Miniature (Finger) \mathcal{A} = Lock on Socket

B = White Screen

C = Blue Screen

B = Green Screen

M = Yellow-green "

 Γ = Long fluorescing time

K = Short fluorescing "

- S E C R E T -

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RCA Designation	Old Russian Designation	New Russian Designation
** { VR-75	75 (5-30	?
** { VR-105	105 (5-30	?
** { VR-150	150 (5-30	?
** { 6H6	—	6X6 or 6X6C
** { 5Z4	5U4	?
** { 5U4	5U4	?
** { 5Y3 ?	—	—
** 6X5	—	6X5
** 6AS7	—	6H11
** 6BG6-G	—	6П7
** (1852) 6AC7	6AC7 & OSW 2190	6Ж4 (6Ж14Б*)
** 6AG7	—	6П9 (6Ж4Б*)
** 6SL7	6H9M	6H9C
** 6SN7	6H8M	6H8C
** 6AG5	6AЖ5	6Ж3П (6Ж5П*)
** 6AB7	—	6K15Б ?
(LS50)	П50	?
** 6L6	—	6П3
** 6F6	6V6-GT	6Ф6C
** 6SJ7	—	6Ж8 (6Ж17Б*)
** 6J6	6H15 (6H1A)	6H15П
RV12P2000	—	12Ж1А
6SK7	—	6K3
12SK7	—	12K3
12SJ7	—	12Ж8
6SA7	—	6A7
6SH7	—	6Ж3
* Formerly used by USSR.		
** Characteristics for these Tubes found in Wulfinkel Tube Manual but not always in the RCA Tube Manual (eg. the 6SL7 & 6AS7 are not in the RCA manual.		

RUSSIAN RADIO TUBE DESIGNATION SYSTEM

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